## ISSUE SLIP STAPLE AREA (for additional cross references)

| POSITION                  | INTTALS    | ID NO. | DATE                |  |  |
|---------------------------|------------|--------|---------------------|--|--|
|                           |            |        |                     |  |  |
| FEE DETERMINATION         |            |        |                     |  |  |
| O.I.P.E. CLASSIFIER       |            |        |                     |  |  |
| FORMALITY REVIEW          | <i>(</i> ` |        |                     |  |  |
| RESPONSE FORMALITY REVIEW | / ):       |        |                     |  |  |
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## INDEX OF CLAIMS

| v | Rejected                   | N | Non-elected  |
|---|----------------------------|---|--------------|
|   | Allowed                    | 1 | Interference |
| _ | (Through numeral) Canceled | Α | Appeal       |
|   | Restricted                 | 0 | Objected     |

| 1  | ٠.           |  |       |    |           |    |   |                | ÷                |                |                |  |          |         |   |
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| ſ  | د د          | im                                       | Γ.    | _  | _         | •  | <u>,0</u>                                     | <del></del>    | Dat              | е —            |                |  |          |         | ٦ |
| ١  | Ole<br>Total |  | H     | g  | 3         | 1  | Ċ٦  |                |                  | Ť              |                |  | _        | Г       | i |
|    | ्र           | lad.                                     | 3     | N  | 3         | Ŧ  | ď   |                |                  |                |                |  |          |         |   |
| 1  | 홑            | ğ  | 1813  | š  | "         | ł  | 3   |                |                  |                |                |  |          |         |   |
| į  | 1            | 유  | F     | Н  | $\bar{z}$ | Ŧ  | 2   |                |                  | -              | $\vdash$       | -  | _        | -       | 4 |
| į  |              | 坚  | μ     | Ц  | 7         | ŧ  |   |                |                  |                | =-             |  | =        | Ħ       | ۲ |
| 1  |              | 12                                       | L     | H  | 4         | 4  | _   | _              |                  |                |                | -  |          | Н       | Н |
| 3  | ŷ,           | 19                                       | Ŀ     | N  | 1         | 1  | ž   |                |                  | $\dashv$       |                |  |          | Ц       | Ц |
| H  | *            | Q  | ŀ     | Ц  | 4         | 1  | _   |                |                  | $\Box$         |                | _  | _        | Ц       | Ц |
| J  | 虚            | 5  | Ŀ     | Ц  | Ä         | 1  |   |                |                  |                | Ш              |  |          | Ц       | Ц |
| 1  | Ž.           | (8)                                      |       | Ц  |           | 1  |   |                |                  |                |                |  |          | Ц       | Ц |
| ١  | 番            | Ų,                                       | A. 10 |    | 4         | 1  | 23  |                |                  |                |                |  |          | Ц       | L |
| 1  | 鑺            | 0  | 23    | Ш  |           | 1  |   |                |                  |                |                |  |          | Ц       |   |
| į  | 41           | Ď  | )     | П  | 1         | Ī  |   |                |                  |                |                |  |          | Ц       |   |
| ì  |              | 10                                       | 7     | IJ | T         | J  |   |                |                  |                |                |  | L        | Ц       |   |
|    | 1            | (11)                                     | 7     | П  | T         | T  |   |                |                  |                |                |  |          | []      |   |
| į  | 濫            | 12                                       | 1     | 1  | 1         | 1  |   |                |                  |                |                |  |          | П       |   |
| J  | 7            | 13                                       | Г     | 1  | T         | 1  |   |                | Γ                | П              |                |  |          | П       |   |
| ş  | ***          | 14                                       | ,     | Ħ  | 1         | t  |   | П              | $\Box$           | П              |                |  |          | П       |   |
|    | 4            | 15                                       | ┢     | H  | +         | †  |   | П              | -                | П              |                | -  |          | П       |   |
| 1  | 6.           | Ta l                                     | t     | H  | +         | †  |   |                |                  |                | П              |  |          | Ħ       | - |
|    | 7.           | 17                                       | H     | Н  | H         | †  |   | ┢              |                  | $\vdash$       |                | П  |          | Ħ       | 7 |
| ,  |              | ≭  | 1     | Н  | Н         | +  |   |                |                  | $\vdash$       | $\vdash$       | Н  |          | H       | ۲ |
|    | .5           | ×  | }-    | Н  | Н         | +  | _   | $\vdash$       | -                | Н              | -              |  | -        | Н       | _ |
|    | *            | 12                                       | 1     | H  | H         | +  |   | ⊢              | $\vdash$         | -              |                | -  | H        | Н       | - |
|    | . \$ -       | (27)                                     | -     | 1  |           | 4  |   | _              | L                | _              |                |  | L        | Ц       | L |
| ė. |              | (2)                                      | L     | Щ  | Ц         | 1  |   |                | _                | $oxed{oxed}$   | _              | <u> </u>   | _        | Ц       | L |
| -  | Ĺ            | 图  | L     | Ш  | Ц         |    |   | 2              | ·*·              |                |                | <u>_</u>   | L        | Ц       | L |
|    | Ē            | 2  | ſ     | П  |           | J  |   | 記録金            | ź.               | 7.             | = 1            |  |          | $\prod$ | Ĺ |
|    |              | 164                                      | 1     | Γ  |           | Ī  | 4   | 3.7            | 97               | 31             |                | L  | Ĺ        |         | Ĺ |
| •  | Г            | 25                                       | Γ     | T  | П         | 1  |   | Γ              | Τ                | Γ              |                |  |          | П       | Γ |
| •  | - 4          | 25<br>26<br>27                           | T     | T  | П         | 1  |   |                | Γ                |                | 7              | 1  |          | П       | Γ |
| j  | 7            | 127                                      | T     | T  | П         | Ħ  |   | Г              | Γ                | П              | 5              |  |          | T       | Γ |
| Ł  |              | 28                                       | t     | 1  | H         | H  |   |                | П                | Т              | ;<br>          | Г  | T        | Ħ       | ٢ |
|    | $\vdash$     | 29                                       | +     | t  | Н         | H  |   | -              | 1                | Н              |                | $\vdash$   |          | Н       | ۲ |
|    |              | 2  | ۲     | í  | Н         | Н  | _   | <del>  -</del> | $\vdash$         | $\vdash$       | -              | <del> </del> Τ                                   | $\vdash$ | H       | H |
|    | ├            | 3  | ╟     | +  | Н         | Н  |   | $\vdash$       |                  | <del>  -</del> | $\vdash$       | $\vdash$   | $\vdash$ | $^{+}$  | H |
|    | $\vdash$     | 13                                       | +     | +  | Н         | Н  |   | -              |                  | $\vdash$       | $\vdash$       | $\vdash$   | H        | ۲       | H |
|    | ŀ            | ::1                                      | +     | +  | Н         | Н  |   | $\vdash$       | $\vdash$         | $\vdash$       | -              | -  | ├        | +       | H |
|    | Ļ÷           | H  | 1     | ╀  | Ľ         | y  | _   |                | ┼—               | $\vdash$       | -              | $\vdash$   | $\vdash$ | H       | H |
|    | <del> </del> | يير                                      | 4     | ŀ  | 1         |    | <u> </u>                                      | ⊢              | 1                | $\vdash$       | ⊨              | $\vdash$   | ⊢        | P       | Ľ |
|    | ۲.,          | 3 3 3 5 5                                | 4     | ⊢  | 1         | ۲  | Ý   | 1              | -                | $\vdash$       | <del> </del> — | $\vdash$   | $\vdash$ | Ł       |   |
|    | <u> </u>     | 100                                      | ₩     | _  | 匕         |    | <u>,                                     </u> | $\vdash$       |                  | ļ              | $\vdash$       | -  | -        | Ł       | _ |
|    | L            | (3)<br>(3)                               | 1     |    | 1         | Ļ  | <u>/</u>                                      | ┡              | 1_               | -              | <u> </u>       | _  | _        | Ļ       | _ |
|    | L            | (38                                      | 41    |    | 1         | _  | 1   | L              | <u> </u>         | <u> </u>       | <u> </u>       | <u> </u>   | L        | Ļ       |   |
|    | L            | 39                                       | 11    | _  | 1         | 4  | J   | 1              | 1                | 1_             | $\perp$        | $oxed{oxed}$                                     | 1_       | 1       |   |
|    | L            | (40                                      | P     | L  | 1         |    | 1   | 1              | $\mathbb{L}_{-}$ | L              |                | L  | $\perp$  |         |   |
|    | Γ            | (41                                      | ď     | Γ  | v         | 1  | J   |                | Г                |                | Γ              | Г  |          | Τ       |   |
|    | Г            | 43                                       | Ť     | Γ  | V         | •  | 1   | T              |                  |                |                | Γ  | 1        | 1       |   |
|    | $\vdash$     |  | ٠.    | t  | Ď         | 7  | 7   | 十              | T                | +-             | $\vdash$       | <del>                                     </del> | T        | t       | _ |
|    | H            | 4  | 1     | t  | Ź         | 1  | 7   | 1              | T                | $\vdash$       | t              | 1  | H        | t       | - |
|    | -            | (4)                                      | #     | H  | 10        | P  | v   | 1-             | ╁                | +-             | +-             | +-   | H        | +       | - |
|    | -            | 46                                       |       | t  | t         | 7  | 7   | +-             | ╁╌               | +              | ╁              | 1-   | +        | +       | _ |
|    | $\vdash$     | 47                                       | -     | +  | ۲.        | 7  | 7   | +              | ╁                | +              | +-             | +-   | $\vdash$ | ╁       | _ |
|    | -            | 48                                       |       | +  | +         | 1  | 7   | ╀              | +-               | +-             | +              | ╁  | ╀        | +       | _ |
|    | -            | 49                                       |       | 4  | ۲,        | 7  | <u>ب</u>                                      | ╁              | +-               | +-             | +-             | $\vdash$   | ╀        | +       | _ |
|    | $\vdash$     |  | -     | 7  | 4:        | ′, | ۲,  | +              | +-               | +              | +              | +-   | +        | +       |   |
|    | L            | 50                                       | Jŀ    | 4  | ٠,١       | •  | IJ  | 1              | 1                | 1              | i              | 1  | 1        | 1       |   |

| F        | Rest     | trict        | ed           |              |                |                | 0            |                |                |          |          |
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|          |          |              |              |              | λ,             |                |              |                |                |          |          |
| Cla      | im       | 3            | V            | 70           | 5              | Dat            | e            |                |                |          |          |
| Ė        |          | 7            | Ľ            | 7            |                | $\Box$         |              |                |                | $\neg$   | ╗        |
| _        | jinal    | 2            | 1,           | 4            |                |                |              |                |                |          | - 1      |
| Fina     | Ę        |              | 11           | 3            |                |                |              |                |                | -        | - 1      |
| <u> </u> | 51       | 7            | Ż            | 7            | Н              | -              | $\dashv$     |                | _              | $\dashv$ |          |
| ⊨        | 4        | F            | ٠            | 7            | Н              |                |              | -              | -              | $\neg$   | ㅓ        |
| $\vdash$ | 52<br>63 | -            | -            | 7            | Н              |                |              | -              | $\dashv$       | $\dashv$ | $\dashv$ |
|          | 54       | ┝            | H            | -            | -              | -              | -            |                | -              | $\dashv$ | ᅴ        |
| $\vdash$ | 55       | -            | ├─           |              | Н              | $\dashv$       | $\dashv$     | -1             |                |          | $\dashv$ |
| $\vdash$ | 56       | -            | <del> </del> | -            | Н              |                | $\dashv$     | $\dashv$       |                |          | ᅱ        |
| $\vdash$ | 57       | -            |              | _            | H              | $\dashv$       | $\dashv$     | $\dashv$       |                |          | $\dashv$ |
| $\vdash$ | 58       | ⊢            | -            | -            | H              |                | -            | $\dashv$       |                | $\dashv$ | $\dashv$ |
| $\vdash$ | 59       | ├            |              |              | Н              | -              | -            |                | $\dashv$       | 一        | $\dashv$ |
| $\vdash$ | 60       | -            | -            | $\vdash$     | Н              | $\vdash$       | -            | $\dashv$       | $\dashv$       |          | $\dashv$ |
| $\vdash$ | 61       | <del> </del> | -            | -            | H              | _              | -            | $\dashv$       | $\dashv$       | $\dashv$ | 一        |
| -        | 62       |              |              | -            | -              | ٦.             |              |                | -              | $\dashv$ | 一        |
| -        | 63       | ⊢            | $\vdash$     |              | $\vdash$       |                |              |                |                | $\dashv$ | ᅱ        |
| -        | 64       | ├—           | ┢            |              |                |                | -            |                |                | $\dashv$ | ᅱ        |
| -        | 65       | -            | ⊢            | ┢            | -              | $\vdash$       |              |                |                | $\dashv$ | $\dashv$ |
| -        | 66       | $\vdash$     | _            |              | 1-             |                |              |                | -              | $\dashv$ | $\dashv$ |
| $\vdash$ | 67       | $\vdash$     | -            | -            | 1              | _              | -            |                |                | $\dashv$ | $\dashv$ |
| -        | 68       |              | -            | $\vdash$     | $\vdash$       |                | -            |                | _              |          | $\dashv$ |
|          | 69       | -            | -            | -            | -              | _              |              |                |                | $\dashv$ |          |
|          | ⊢        | -            |              | ⊢            | $\vdash$       |                |              |                |                | $\vdash$ |          |
|          | 70       | <u> </u>     | -            | ┡            | H              | -              |              | _              |                | -        |          |
| -        | 71       | _            |              | _            |                |                |              |                |                |          |          |
| -        | 72       | <b>├</b>     |              | _            | ⊢              |                | _            |                |                |          |          |
| $\vdash$ | 73       | _            | -            | _            | ⊨              |                |              |                |                |          |          |
| _        | 74       |              | ├            | ⊢            | -              | -              |              | -              |                |          |          |
| -        | 75       |              | ├-           | H            | ⊢              | -              | _            |                |                |          |          |
| $\vdash$ | 76       | ├-           | ⊢            |              | -              |                |              |                |                | H        |          |
| $\vdash$ | 77       | ⊢            | ⊢            |              | -              | -              |              | -              |                |          |          |
| -        | 78<br>79 | ├-           | ┡            | -            | -              | -              | H            |                |                | Н        |          |
| -        |          | -            | ⊢            | ļ            | <b>├</b> -     |                | <u> </u>     | -              |                | H        | -        |
| -        | 80       | _            | ├            | ├            | <del> </del> — |                |              |                | $\vdash$       | H        |          |
| -        | 81       | -            | -            | <del> </del> | ╁              | ┝              |              | _              | -              | -        |          |
| -        | 82<br>83 | -            | -            | -            | $\vdash$       | -              | <del> </del> | -              | H              | -        | -        |
| -        | 84       | ╀            | ┼            | +-           | 1              | $\vdash$       |              | <del> </del> — | H              | -        | -        |
| $\vdash$ | 85       | +-           | +-           | +-           | -              | $\vdash$       | -            | $\vdash$       |                | $\vdash$ |          |
| $\vdash$ | 86       |              | +-           | $\vdash$     | +-             | -              | $\vdash$     | $\vdash$       | -              | -        | -        |
| $\vdash$ | 87       | $\vdash$     | +-           | $\vdash$     | +-             | -              | $\vdash$     | ├              | -              | -        | _        |
| $\vdash$ | 88       | $\vdash$     | -            | $\vdash$     | +              | -              | -            | $\vdash$       | -              | -        |          |
|          | 89       | -            | ⊢            | $\vdash$     | -              | -              | ⊢            | -              | -              | -        | _        |
| -        | 90       | +            | ┼-           | -            | $\vdash$       |                | -            | <del> </del>   | $\vdash$       | $\vdash$ |          |
| -        | +        | $\vdash$     | -            | -            | +              | $\vdash$       | -            | ⊢              | _              | $\vdash$ | -        |
| $\vdash$ | 91       | ╄-           | 1            | ┡            | ╀              | -              | $\vdash$     |                | _              | H        | $\vdash$ |
| <u> </u> | 92       | +            | -            |              |                | ⊢              | <del> </del> | <del> </del>   | ⊢              | -        | -        |
| <u> </u> | 93       | -            | ╁            | 1            | -              | -              | ⊢            | -              | -              | -        | -        |
| <u> </u> | 94       | -            | $\vdash$     | $\vdash$     | $\vdash$       | <del> </del>   | $\vdash$     | <u> </u>       | -              | ├-       | <u> </u> |
| -        | 95       |              | ┼-           | ╀            | ┼              | ├-             | <u> </u>     | <del> </del>   |                | -        | -        |
| -        | 96       | +-           | +            | ┞-           | -              | -              | $\vdash$     | <del> </del>   | <del>  -</del> | <u> </u> |          |
| -        | 97       | -            | 1            | 1            | <b>Ļ</b> _     | ↓_             | -            | $\vdash$       | ⊢              | $\vdash$ | ├-       |
| $\vdash$ | 98       | _            | ╁            | 1            | -              | <del> </del> — | ├-           |                | -              | -        | 1—       |
| L.       | 99       | 4            | 1            | 1            | 1              | 1              | 1            | I              | <u></u>        | <u> </u> |          |

| Cla  | im         |              |          | _        |                | Dat  | e .  |          |          |                |              |
|--|------------|--------------|----------|----------|----------------|--|--|----------|----------|----------------|--------------|
| Cla  |            |              | _        |          |                | Jai  |  |          |          |                |              |
| Final  | Original   |              |          |          |                |  |  |          |          |                |              |
| 1  | 101        | -1           |          |          |                |  |  | Н        |          |                |              |
| <del>                                     </del> | 102        |              |          |          |                |  | -  |          |          |                |              |
|  | 103        | $\dashv$     |          |          |                |  | -  |          |          |                |              |
| ┢  | 104        | $\dashv$     | _        |          |                | _  | $\vdash$   |          | -        | -              |              |
|  | 105        | _            |          | Т        | $\vdash$       |  | -  |          |          |                |              |
| $\vdash$   | 106        |              |          |          |                |  |  |          |          |                |              |
|  | 107        |              |          |          |                |  |  |          |          |                |              |
|  | 108        |              |          |          |                |  |  |          |          |                |              |
|  | 109        |              |          |          |                |  | L  | L        |          |                |              |
|  | 110        |              |          | L        | L              |  | <u> </u>   | <u></u>  | L        |                |              |
|  | 111        |              |          |          | _              |  | <u> </u>   | <u> </u> |          | $\vdash$       |              |
| _  | 112        |              |          |          |                | L  |  | _        |          | _              |              |
| -  | 113        | Н            |          | _        | <u> </u>       | -  |  | -        | $\vdash$ | H              | H            |
| -  | 114<br>115 |              |          | -        | -              | ┡  | ├-   | -        | $\vdash$ |                | <u> </u>     |
| -  | 116        |              |          | -        | $\vdash$       | H  |  |          | H        | -              |              |
| $\vdash$   | 117        | H            | -        |          |                | ├╌   |  | $\vdash$ | -        |                | _            |
| $\vdash$   | 118        |              | -        | ┝        | -              | -  | <del>                                     </del> | ┢        | -        |                | Н            |
| -  | 119        | -            | -        | -        | $\vdash$       | $\vdash$   | <del>                                     </del> | 一        | -        |                | H            |
| $\vdash$   | 120        | $\vdash$     |          | $\vdash$ | -              | $\vdash$   |  | -        | -        |                | H            |
| -  | 121        |              | H        | $\vdash$ | -              | $\vdash$   | $\vdash$   | -        | -        |                | -            |
| -  | 122        | -            | -        | H        | -              | -  | $\vdash$   | $\vdash$ | -        |                | Н            |
| $\vdash$   | 123        | H            | -        | $\vdash$ | -              | _  |  | <u> </u> |          |                | Т            |
|  | 124        | _            | Г        | r        | 1              |  | T  |          | ┢        |                |              |
|  | 125        |              |          |          |                |  |  |          |          | _              | Г            |
|  | 126        |              |          |          |                |  |  |          |          |                |              |
|  | 127        |              |          |          |                | L  |  |          |          | _              | L            |
|  | 128        | -            |          | <u> </u> |                | L  | L  | L        | ļ        | L              | L            |
| $oxed{oxed}$                                     | 129        | -            |          | ļ        | L              | _  | <u> </u>   | L        | <u> </u> | L              | _            |
| $\vdash$   | 130        | <del>!</del> |          | _        | ļ.             | <u> </u>   | _  | ↓_       | ⊢        | ⊢              | -            |
| <u> </u>   | 131        |              | <u> </u> | -        |                | L  | -  | ├        | L        | L              | ┝            |
| -  | 132        | _            | <u> </u> | -        | <del> </del>   | ┝  |  | ┝        | ├-       | <del> </del> — | L            |
| $\vdash$   | 133        |              | -        | -        |                | ┞  | ┼  | $\vdash$ | -        | ⊢              | ┞            |
| -  | 134        | -            | $\vdash$ | ├-       | <del> </del> — | ⊢  | ╁╌   | ├        | ┢        | -              | $\vdash$     |
| -  | 136        |              | $\vdash$ | -        | ╁              | $\vdash$   | $\vdash$   | ╁╌       | ├        |                | H            |
| $\vdash$   | 137        | -            | ├        | ╁╌       |                | $\vdash$   |  | ┢        | +        | H              | ┢            |
| $\vdash$   | 138        |              | H        | ┢        | $\vdash$       | ┢  | $\vdash$   | $\vdash$ | 1        | H              | ┢            |
| $\vdash$   | 139        | -            | ┤        | ╁╴       | $\vdash$       | ┢  | H  | 1        | T        | T              | ┢            |
| -  | 140        |              | -        | T        | 1              |  | T  | Г        | T        | T              | Γ            |
| -  | 141        |              | -        | Г        | 1              |  | $\vdash$   | Т        | Т        | ⇈              |              |
| -  | 142        | _            | -        | ┪        | $\vdash$       | <del>                                     </del> | $\vdash$   | $\vdash$ | T        | T              | T            |
|  | 143        |              | T        | T        | I              | Τ  | 1  | ⇈        | 1        | Γ              | Γ            |
|  | 144        |              | Г        | Γ        |                | Γ  |  | Γ        |          |                |              |
|  | 145        |              |          |          |                |  |  |          |          |                | L            |
|  | 146        |              |          |          |                |  |  | L        |          | L              | Ĺ            |
|  | 147        |              | Ĺ        | L        |                | L  |  |          |          | _              | $oxed{oxed}$ |
|  | 148        |              | $\perp$  | 1        |                | L  | L  | _        | L        | 1_             | L            |
| _  | 149        | 1            | <u> </u> | 1_       | 1              | <u> </u> _                                       | $\perp$  | 1        | -        | <del> </del>   |              |
| L  | 150        | 1            | <u>L</u> | 1_       | <u>i_</u>      |  | <u>L</u>   | 上        | 上.       | ــــل          | L            |

If more than 150 claims or 10 actions staple additional sheet here

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